

Amendments to the Claims None:

This listing of claims in the application:

1. (Currently Amended) A method for jointly controlling the data rate and power level of data transmission across a communication channel, comprising:

providing an ordered list of a plurality of transmit parameter pairs that each include information indicative of a data rate and information indicative of a power level, wherein ordering the list comprising:

ordering the data rate for a first group of the transmit parameter pairs from lowest to highest, the data rate for each of the transmit parameter pairs of the first group paired with a common maximum power level;

ordering the power level for a second group of the transmit parameter pairs from highest to lowest, the power level for each of the transmit parameter pairs of the second group paired with a common maximum data rate;

transmitting at the data rate and power level indicated by a selected one of the transmit parameter pairs; and

sequentially selecting different ones of the transmit parameter pairs to be the selected transmit parameter pair, including determining which of the transmit parameter pairs will be the next selected transmit parameter pair based on the currently selected transmit parameter pair and a communication quality condition associated with the communication channel.

2. (Original) The method of claim 1 wherein the communication quality condition includes a signal to noise ratio.

3. (Original) The method of claim 1 wherein the communication quality condition includes a signal to interference noise ratio.

4. (Original) The method of claim 1 wherein the communication quality condition includes a packet error rate.

5. (Original) The method of claim 1 wherein the communication quality condition includes a function of a signal to noise ratio and a signal to interference noise ratio.

6. (Original) The method of claim 1 wherein the communication channel is a wireless communication channel.

7. (Original) The method of claim 1 wherein the communication channel is a Bluetooth communication channel.

8. (Original) The method of claim 1 wherein the communication channel is an IEEE 802.11b communication channel.

9. (Cancelled).

10. (Cancelled).

11. (Cancelled).

12. (Currently Amended) The method of claim 9 wherein the ordered list includes a plurality of adjacent integer indices respectively associated with the plurality of transmit parameter pairs.

13. (Original) The method of claim 12 wherein the sequentially selecting step includes stepping incrementally through the indices.

14. (Original) The method of claim 1 wherein the determining step includes evaluating the communication quality condition based on the currently selected transmit parameter pair.

15. (Currently Amended) An apparatus for jointly controlling the data rate and power level of data transmission across a communication channel, comprising:

a storage portion for storing an ordered list of a plurality of transmit parameter pairs that each include information indicative of a data rate and information indicative of a power level, said storage portion having an output for outputting a selected one of the transmit parameter pairs, wherein the ordered list orders the data rate for a first group of the transmit parameter pairs from lowest to highest, the data rate for each of the transmit parameter pairs of the first group paired with a common maximum power level and wherein the ordered list further orders the power level for a second group of the transmit parameter pairs from highest to lowest, the power level for each of the transmit parameter pairs of the second group paired with a common maximum data rate;

a communication interface coupled to said storage portion output for transmitting at the data rate and power level indicated by the selected transmit parameter pair; and

a controller coupled to said storage portion for sequentially selecting different ones of the transmit parameter pairs to be the selected transmit parameter pair that is output from said storage portion, said controller including an input for receiving information indicative of a communication quality condition associated with the communication channel, and said controller operable for determining which of the transmit parameter pairs will be the next selected transmit parameter pair based on the communication quality condition and the currently selected transmit parameter pair.

16. (Cancelled).

17. (Cancelled).

18. (Cancelled).

19. (Currently Amended) The apparatus of claim ~~14~~15 wherein the ordered list includes a plurality of adjacent integer indices respectively associated with the plurality of transmit parameter pairs.

20. (Original) The apparatus of claim 19 wherein the controller steps incrementally through the indices.

21. (Original) The apparatus of claim 15 wherein the controller evaluates the communication quality condition based on the currently selected transmit parameter pair.

22. (Original) The apparatus of claim 15, provided in one of a Bluetooth and an IEEE 802.11b transmitter.

23. (Currently Amended) A communication system, comprising:

a transmitter for transmitting data on a communication channel;

a receiver for receiving via said communication channel the data transmitted by said transmitter; and

said transmitter including an apparatus for jointly controlling the data rate and power level at which the data is transmitted on the communication channel, including a storage portion for storing an ordered list of a plurality of transmit parameter pairs that each include information indicative of a data rate and information indicative of a power level, said storage portion having an output for outputting a selected one of the transmit parameter pairs, a communication interface coupled to said storage portion output for transmitting at the data rate and power level indicated by the selected transmit parameter pair, and a controller coupled to said

storage portion for sequentially selecting different ones of the transmit parameter pairs to be the selected transmit parameter pair that is output from said storage portion, said controller including an input for receiving information indicative of a communication quality condition associated with the communication channel, and said controller operable for determining which of the transmit parameter pairs will be the next selected transmit parameter pair based on the communication quality condition and the currently selected transmit parameter pair, wherein the ordered list orders the data rate for a first group of the transmit parameter pairs from lowest to highest, the data rate for each of the transmit parameter pairs of the first group paired with a common maximum power level and wherein the ordered list further orders the power level for a second group of the transmit parameter pairs from highest to lowest, the power level for each of the transmit parameter pairs of the second group paired with a common maximum data rate.